# CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

**NABL** - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.02/KRIDL/CSR-06/064c/CEMENT/2016-17 Date: 14.06.2016

## TEST REPORT ON CEMENT

| | | |
|---|---|---|
| * CUSTOMER | : | **Asst. Executive Engineer**, Yelahanka Sub Division, BBMP, Bangalore. |
| *AGENCY | : | **Technical Manager,** KRIDL, Bangalore. |
| *NAME OF THE WORK | : | Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore. |
| *REFERENCE | : | AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016 |
| SAMPLE ID | : | Cement |
| SAMPLE RECEIVED ON | : | 13.06.2016 |
| PERIOD OF TESTING | : | 13.06.2016 to 14.06.2016 |

The results of the tests conducted on the cement sample are as follows:

| Sl. No | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 8112-2013 |
|---|---|---|---|---|
| 1 | Standard Consistency | IS-4031 (Part -4) 1988(RA-2009) | 29.00 % | |
| 2 | a) Initial Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 155 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 480 Minutes | Not More than 600 Minutes |
| 3 | Soundness by Le Chartlier Method | IS-4031 (Part-3) 1988(RA-2009) | 1 mm | Not more than 10mm |

*Information is furnished by the Customer/Representative.

Note:

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T-2377


Job No.: CTCE/BBMP/W.No.02/KRIDL/CSR-06/064c/SAND-Gradation/2016-17 : 14.06.2016

## TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

| | |
|---|---|
| * Customer | : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore. |
| * Agency | : **Technical Manager,** KRIDL, Bangalore. |
| * Name of Work | : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore. |
| Reference | : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016 |
| Technical Reference | : IS : 2386 Part 1 - 1963 RA-2007 |
| Sample ID | : Fine Aggregates |
| Sample Received on | : 13.06.2016 |
| Date of Testing | : 14.06.2016 |

Total Wt. of Aggregates in gms 1000

| Is Sieve Size in mm | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA- 2007) | | | |
|---|---|---|---|---|---|
| | | Zone-I | Zone-II | Zone-III | Zone-IV |
| 10 | 100 | 100 | 100 | 100 | 100 |
| 4.75 | 95.20 | 90-100 | 90-100 | 90-100 | 95-100 |
| 2.36 | 76.70 | 60-95 | 75-100 | 85-100 | 95-100 |
| 1.18 | 56.70 | 30-70 | 55-90 | 75-100 | 90-100 |
| 600 Micron | 26.90 | 15-34 | 35-59 | 60-79 | 80-100 |
| 300 Micron | 11.90 | 5-20 | 8-30 | 12-40 | 15-50 |
| 150 Micron | 3.40 | 0-10 | 0-10 | 0-10 | 0-15 |

* Information is furnished by the Customer/Representative

**Remarks :** This sample is under Zone-I specific limits.

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T-2377

Job No.: CTCE/BBMP/W.No.02/KRIDL/CSR-06/064c/AGG/GR/2016-17 : 14.06.2016

## TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

| | |
|---|---|
| * Customer | : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore. |
| * Agency | : **Technical Manager,** KRIDL, Bangalore. |
| * Name of Work | : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore. |
| Reference | : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016 |
| Technical Reference | : IS : 2386 Part 1 -1963 RA-2007 |
| Sample ID | : Coarse Aggregates (40mm) |
| Sample Received on | : 13.06.2016 |
| Date of Testing | : 14.06.2016 |

Total Wt. of Aggregates in gms= **7000**

| Is Sieve Size in mm | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA- 2007) | |
|---|---|---|---|
| | | Graded | Single Sized |
| 80 | 100 | 100 | - |
| 63 | 100 | - | 100 |
| 40 | 97.43 | 95-100 | 85-100 |
| 20 | 36.00 | 30-70 | 0-20 |
| 10 | 11.71 | 10-35 | 0-5 |
| 4.75 | 2.43 | 0-5 | - |

* Information is furnished by the Customer/Representative

**Remarks** : This sample is under Graded specific limits.

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T-2377

Job No.: CTCE/BBMP/W.No.02/KRIDL/CSR-06/064c/CC Solid Block/2016-17 : 16.06.2016

## TEST REPORT ON SOLID CONCRETE BLOCKS

| | |
|---|---|
| * Customer | : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore. |
| * Agency | : **Technical Manager,** KRIDL, Bangalore. |
| * Name of the Work | : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore. |
| Reference | : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016 |
| Sample Received on | : 13.06.2016 |
| Date of Testing | : 16.06.2016 |
| Size of Blocks | : 400mm x 200mm x 200mm |
| Cross Sectional Area | : 80000 $mm^2$ |
| Technical Reference | : IS: 2185 (Part 1) - 2005 |
| No. of Blocks Tested | : 08 |

| Sl.No. | Block ID | Wt. in Kg | Failure load (KN) | Compressive strength ($N/mm^2$) | Requirement as per IS 2185 (Part 1) - 2005 |
|---|---|---|---|---|---|
| 1 | Block 1 | 35.25 | 259.2 | 3.24 | Minimum required Compressive Strength of Individual Units 3.20 $N/mm^2$ |
| 2 | Block 2 | 34.12 | 260.3 | 3.25 | |
| 3 | Block 3 | 33.26 | 258.9 | 3.24 | |
| 4 | Block 4 | 34.21 | 260.5 | 3.26 | |
| 5 | Block 5 | 35.16 | 261.2 | 3.27 | |
| 6 | Block 6 | 34.28 | 258.9 | 3.24 | |
| 7 | Block 7 | 35.12 | 262.1 | 3.28 | |
| 8 | Block 8 | 34.25 | 260.3 | 3.25 | |

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# CIVIL-TECH CONSULTANTS AND ENGINEERS

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Job No.: CTCE/BBMP/W.No.02/KRIDL/Fencing/2016-17 21.06.2016

## TEST REPORT ON CHAIN LINK FENCING WIRE (8th Gauge)

Customer : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of work : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore.

Reference : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016

Samples ID : Samples Supplied By Agency

| Sl.No | Description | Result |
|---|---|---|
| 1 | Diameter | 4.05 mm |
| 2 | Internal Spacing | 50 mm X 50 mm |
| 3 | Weight / Meter (1m x 1m) | 4.190 Kg |

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Building & Highway Material Testing Laboratory
An ISO 9001:2008 Certified Company
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Job No.: CTCE/BBMP/W.No.02/KRIDL/MS Angle/2016-17

21.06.2016

## TEST REPORT ON STRUCTURAL STEEL

Customer : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL., Bangalore.

Name of work : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore.

Reference : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016

Samples ID : Samples Supplied By Agency

Specimen Size : ISA-65X65X6mm (1m Length)

| Sl.No | Description | Result |
|---|---|---|
| 1 | Thickness | 6.02 mm |
| 2 | Width | 65.0 mm |
| 3 | Weight / Meter | 5.85 Kg |

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Job No.: CTCE/BBMP/W.No.02/KRIDL/MS Pipe/2016-17 21.06.2016

## TEST REPORT ON M.S PIPE (38mm Dia)

Customer : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of work : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore.

Reference : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016

Specimen Size : M.S Pipe 38mm Dia

## PHYSICAL TEST

| Sl.No | Description | Result |
|---|---|---|
| 1 | Thickness | 2.06 mm |
| 2 | Inner Diameter | 38.25 mm |
| 3 | Outer Diameter | 42.37 mm |
| 4 | Weight / Meter | 1.895 kg |

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T-2377

Job No.: CTCE/BBMP/W.No.02/KRIDL/CSR-06/064c/CUBE/2016-17 04.07.2016

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

* Agency : **Technical Manager,** KRIDL, Bangalore.

* Name of the work : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore.

* Reference : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016

* Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 $mm^2$

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : $M_{30}$

Compressive Strength as on : 7th day

Sample Received on : 04.07.2016

| Sl.No. | * Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 27.06.2016 | 04.07.2016 | 8.126 | 328.3 | 14.59 |
| 2 | 27.06.2016 | 04.07.2016 | 8.259 | 342.2 | 15.21 |
| 3 | 27.06.2016 | 04.07.2016 | 8.342 | 350.2 | 15.56 |

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## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

* Agency : **Technical Manager,** KRIDL, Bangalore.

* Name of the work : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore.

* Reference : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016

* Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 $mm^2$

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : $M_{20}$

Compressive Strength as on : 7th day

Sample Received on : 04.07.2016

| Sl.No. | * Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 27.06.2016 | 04.07.2016 | 8.129 | 359.6 | 15.98 |
| 2 | 27.06.2016 | 04.07.2016 | 8.297 | 360.2 | 16.01 |
| 3 | 27.06.2016 | 04.07.2016 | 8.322 | 362.3 | 16.10 |

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T-2377

Job No.: CTCE/BBMP/W.No.02/KRIDL/CSR-06/064c/CUBE/2016-17 05.07.2016

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

* Agency : **Technical Manager,** KRIDL, Bangalore.

* Name of the work : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore.

* Reference : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016

* Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 $mm^2$

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : $M_{20}$

Compressive Strength as on : 7th day

Sample Received on : 05.07.2016

| Sl.No. | * Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 28.06.2016 | 05.07.2016 | 8.110 | 326.3 | 14.50 |
| 2 | 28.06.2016 | 05.07.2016 | 8.285 | 342.5 | 15.22 |
| 3 | 28.06.2016 | 05.07.2016 | 8.321 | 350.1 | 15.56 |

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* Agency : **Technical Manager,** KRIDL, Bangalore.

* Name of the work : Improvements and Maintenance to Crematorium in Chowdeshwari Ward No.02 Yelahanka Sub Division, BBMP, Bangalore.

* Reference : AEE/BBMP/YSD/AE-2/09/2016-17 Dated: 13.06.2016

* Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 $mm^2$

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : $M_{20}$

Compressive Strength as on : 7th day

Sample Received on : 05.07.2016

| Sl.No. | * Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 28.06.2016 | 05.07.2016 | 8.165 | 335.6 | 14.92 |
| 2 | 28.06.2016 | 05.07.2016 | 8.230 | 340.6 | 15.14 |
| 3 | 28.06.2016 | 05.07.2016 | 8.358 | 350.1 | 15.56 |

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